

Report upon the Reptilia of the North Pacific Exploring Expedition, under command of Capt. John Rogers, U. S. N.

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Nicaragua.

SAURIANS.

GECKOTIANS.

Geckotian Lizards—Lezards Geckotiens D. & B.

HEMIDACTYLUS CUV.

Sect. DACTYLOPERES. *Peropus* Wieg.

Div. A.—*Subdigital lamella entire.*

HEMIDACTYLUS PRÆSIGNIS nob.

Proceed. Acad. Nat. Sci., Oct. 1856, p. 222.

*Char.* Rostral plate bilobed; seven superior labials; mental plate very large, the sides excavated, rounded posteriorly; six plates in a transverse row beneath the chin, the two middle ones much smaller than the lateral; tail slender, long; color uniform chocolate-brown above; abdomen and under part of tail whitish. Total length, 6 inches. Tail, 3 inches, 3 lines.

Found also in Jamaica.

SPHÆRIODACTYLUS CUV.

For gen. char. see D. & B., tom. ii. 401.

SPHÆRIODACTYLUS MILLEPUNCTATUS nob.

*Spec. char.* Dorsal scales very small, uncarinate; color reddish, with numerous small brownish spots; under parts white; length of head and body, 11 lines.

*Description.* Scales upon muzzle larger than those upon the vertex; those upon body remarkable for their small size, being much smaller than those of the specimens in the Museum, marked *nigropunctatus*, from Jamaica, or of *Sphæriodactylus fantasticus*, from Mexico. Abdominal scales carinated, very much larger than those upon the throat and chin; color reddish-brown above, with numerous brown spots, intermingled with very minute white points; under parts white. Two specimens.

IGUANIANS.

Sauriens Eunotes D. & B. Lezards Iguaniens.

ANOLIS D. & B.

Div. A.—*With fingers but slightly dilated.*

ANOLIS REFULGENS Schlegel.

*Draconura nitens* Wagl. Dum. & Bib., tom. iv. p. 91.

This species is very well characterized by the larger row of scales along the median line of the back; the granulations upon the sides are much smaller than those of the back and abdomen, and there is a larger row of scales upon the back of the tail; immediately behind the mental plate are six scales, in a transverse row, the four intermediate quite small, the lateral much larger; the occipital scale lies in a well marked depression, the supra-orbital ridges are nearly in contact, and on the front part of the head is a longitudinal

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ovoid depression, the scales of which are smooth; those upon the snout carinated, as also the scales upon the abdomen; the colors of these specimens are much darker than that of another; brownish above, and orange colored mingled with yellow beneath; in the other, the general color is golden yellow, lighter beneath, with a tinge of white upon the abdomen. Total length,  $5\frac{1}{4}$  inches; of tail, 2 inches 8 lines. Found also in Surinam. (D. & B.)

ANOLIS LONGICAUDA nob.

*Spec. char.* Scales upon the muzzle keeled; eight superior labials; scales of abdomen carinated; dorsal scales indistinctly carinated; median rows larger; tail very long; color green; gular pouch orange, with two indigo-colored lateral stripes, one on each side. Total length, 5 inches, 5 lines.

*Description.* 44 teeth in the upper jaw; 10 posterior tricuspid; 43 in the lower; the 10 or 11 posterior distinctly trilobed; scales upon the muzzle keeled; two crests upon the head, prolongations of the superciliary ridges, circumscribing laterally a longitudinal depression, broader in front; the scales in this depression polygonal, much larger than those upon the muzzle, keeled; eight superior labials; six rows of scales upon the side of the head anteriorly, between the superior labials and its upper margin; auricular opening moderate; abdominal scales much the largest, keeled; those upon the sides very small, granular; back covered with polygonal scales, indistinctly carinated; several of the median rows larger than the others; breadth of head posteriorly, one-half of its total length; body and extremities slender; tail very long and tapering, round at base, more than double the length of head and body; color bluish above, probably green during life; lighter upon the tail; abdomen, chin, under part of tail and extremities very light blue; gular pouch orange with two indigo-colored stripes, one on each side. Total length 5 inches, 5 lines; of tail, 3 inches, 10 lines. One specimen.

*Gen. remarks.* This species is quite different from *An. sericeus*, a Mexican species, in which the scales upon the back are granular, and of nearly equal size; it is also a stouter animal, and the tail is shorter. *Anolis tropidogaster nob.*, from New Grenada, is destitute of the two well marked crests so characteristic of this species, and the plates lying at the bottom of the longitudinal depression between them are much longer than those on the corresponding position in *tropidogaster*; and the shape of this depression is quite different, being much broader in front, in *longicauda*. In *Anolis pulchellus D. & B.*, the carinations of the scales before the back and abdomen are indistinct; whereas, in the present species they are well marked; the tail in the former is but one-third the total length.

ANOLIS CUPREUS nob.

*Spec. char.* Scales upon muzzle carinated; supraorbital ridges separated by several rows of scales; three or four rows of scales intervening between each interorbital ridge and the occipital scale; six superior labials; abdominal and dorsal scales very distinctly carinated; those upon tail very strongly keeled; copper colored above, whitish beneath; throat orange; in some specimens a black spot upon the shoulder. Length of head and body 1 inch 8 lines.

*Description.* A small species. Scales upon the muzzle very distinctly carinated; supraorbital ridges separated by several rows of scales; three or four rows of scales intervening between the supraorbital ridge and the occipital scale; six or seven supraorbital scales separated from the supraorbital ridge by a single row of granules; three scales carinated, and two of them much larger than the others; six superior labial scales; six or seven rows of scales upon the sides of the head anteriorly above the supraorbitals; auricular opening moderate; scales of the flanks smaller than those upon the back and abdomen; abdominal and dorsal scales very distinctly carinated; those upon  
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tail very strongly keeled; copper colored above, whitish or yellowish white beneath; throat often orange, and in some specimens a black spot over the shoulder. Length of head and body 1 inch 8 lines. Seventeen specimens.

DACONURA Wagler, Wiegmann.

DACONURA BIVITTATA nob.

*Spec. char.* Head covered with polygonal plates of unequal size; color brownish above, with two lateral white vittæ, bordered with black, one on each side, commencing behind the eyes, and extending the whole length of the body, as far as the base of the tail; under parts white. Total length  $4\frac{2}{4}$  inches; of tail, 1 inch 4 lines.

*Description.* Seven supra labials, nostril in a single scale; plates upon front and muzzle uncarinate; superciliary wide, separated by two rows of scales, a single row between former and occipital scale; a single row of scales much larger than the rest, commencing at about three lines from the occiput, and extending along the median line of the back and tail above; scales upon back larger than upon sides; those of the belly very distinctly carinated; a gular fold; tympanum quite distinct; no femoral or anal pores; scales upon under part of tail strongly carinated; extremities slender; third and fourth fingers of nearly equal length; fourth toe much the longest; fingers and toes slender, not dilated, inner margin serrated; fingers and toes 5—5; tail very long, slender, tapering to a point.

*Coloration.* General color olive above, somewhat darker upon the sides; with two narrow white vittæ, bordered with black, one on each side, commencing behind the eye and extending the whole length of the body, being lost upon the base of the tail; extremities indistinctly barred with brown above; under parts whitish.

*Habitat.* Nicaragua. A single specimen.

SCELOPORUS Weigm.

SCELOPORUS SCALARIS Weigm.

Twenty-six specimens (sixteen young).

TELDÆ.

CNEMIDOPHORUS.

CNEMIDOPHORUS DECEMLINEATUS nob.

*Spec. char.* Nostril in the posterior margin of the naso-rostral plate; color grey above, with ten white lines, five on each side of the back; eight rows of abdominal scales. Total length  $7\frac{1}{2}$  inches; tail  $4\frac{1}{2}$  inches.

*Description.* The nostril opens in the posterior edge of the naso-rostral plate; five superior labials; a single row of large transverse scales on the anterior surface of the forearm; twenty-two femoral pores in the single specimen. The ground color above is greyish or olive; in the youngest specimens the intermediate space between the four upper white lines, jet black, forming three distinct jet black bands on each side; these jet black bands are more distinct in the youngest specimens; in the oldest the upper surface is of a uniform olive color, darker upon the sides; the entire surface of the abdomen, and the greater part of the under surface of the thighs, jet black; anterior part of forearms white spotted; these spots quite small, and by no means so distinct or near so large as in *Clemnisca tus*; in the younger specimens, presenting the form of vermiculations.

*Dimensions.* Length of head 10 lines; of neck and body to vent, 2 inches 1 line; of tail  $4\frac{1}{2}$  inches.

*Habitat.* Nicaragua. Seventeen specimens.

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*Gen. remarks.* This species is readily distinguished from *C. lemniscatus*, the latter having but nine lines, the middle one of which bifurcates toward the occiput, and the sides more or less white spotted.

*CNEMIDOPHORUS QUADRILINEATUS* nob.

*Spec. char.* Nostril between the naso-rostral and naso-frenal plate; five supra-labials; eight rows of abdominal scales; color brownish black above; jet black upon the sides, with two very narrow white lines, extending from the temples in a line with the posterior margin of the eye, extending as far as the posterior extremities; a single row of broad scales upon the anterior surface of the forearms. Total length 3 inches 3 lines.

*Description.* The above appears to be one of the smallest of the species of *Cnemidophorus*. It is readily distinguished by its small size, and the peculiarity of its markings; in front of the gular fold is a row of four large scales, followed by several smaller ones; the back, between the two inner stripes, is vermiculated with black, the sides white spotted; the tail presents a white lateral stripe, a continuation of the lower one upon the side; under parts bluish, lighter upon the chin.

*Dimensions.* Length of head 5 lines; of body to vent 11 lines; length of tail  $2\frac{1}{2}$  inches; total length 3 inches 4 lines.

*Habitat.* Nicaragua. Four specimens.

*Gen. remarks.* *Cnemidophorus præsignis* B. & G., from Chagres, said also to be common at Para, has ten rows of abdominal plates.

*AMEIVA* Cuvier.

*AMEIVA PULCHRA* nob.

*Spec. char.* Nostril between the naso-rostral and naso-frenal plates; a group of large scales upon the chin, surrounded by smaller ones; three or four large scales in front of the gular fold, surrounded by smaller scales; eight rows of abdominal plates; color olive above, with two lateral stripes of brown, one on each side, with numerous transverse rows of black. Total length  $8\frac{1}{2}$  inches.

*Description.* This is a beautiful species of *Ameiva*, presenting distinctly the characters of the genus, viz.—the retractility of the tongue beneath the glottis, which distinguishes *Ameiva* from *Cnemidophorus*. In a natural series, it would take the place of *Ameiva Sloani*, which it resembles very closely in size, but the neck is not near so narrow as in that species; there is but a single row of large transverse scales in front of the forearm; the granulations upon the back are distinctly larger than those upon the sides; twenty femoral pores; the color of the head is light brown above, and upon the sides; olive colored or light brown upon the back, with a band of deep brown along each side, presenting numerous transverse bars of black; abdomen bluish, the rest of the under surface white, with a tinge of blue; in many of the specimens a row of white spots extends from the tympanum to the posterior extremity, occasionally assuming the form of a very narrow white line; a white spot upon the temple, and three or four around the margin of the tympanum. Eighteen specimens.

*Habitat.* Nicaragua.

SCINCIDÆ *Ophiophthalmidæ*.

Among the saurians of the collection from Nicaragua are two small lepidosaurians belonging to the subfamily *Ophiophthalmidæ*, and which appear to belong to a genus not yet described, having four toes to each of the anterior, and the same number to each of the posterior extremities. For the distinctive characters of the genera already known, see D. et B., tom. v., 806–831. It may be thus characterized;—No eyelid; nostrils lateral, opening in a single scale; no superno-nasals; teeth conical, simple; tongue bifid, 1860.]

covered with scales; palate without teeth, with a triangular excavation; auricular openings; four extremities each with four toes; scales smooth, neither femoral or præanal pores; palpebral circle, more or less complete. It will be observed that these characters are precisely the same as those of the genus *Ablepharus* of Fitzinger, as given by D. & B., except that the number of fingers and toes is four instead of five.

Gen. BLEPHARACTISIS nob.

BLEPHARACTISIS SPECIOSA nob.

*Spec. char.* An internasal, two fronto-nasals, a small frontal, a large interparietal, two parietals; color dark olive above, with two dark lateral stripes, one on each side; under parts lighter. Total length  $1\frac{1}{2}$  inches; of head and body 8 lines.

*Habitat.* Nicaragua. Two specimens.

### OPHIDIANS.

SYNCRANTERIDÆ.

LEPTOPHIS Bell.

LEPTOPHIS MARGARITIFERUS D. & B., tom. vii. p. 539.

*Herpetodryas margaritifera* Schlegel, *Essai la Physionomie des Serpens*, tom. i. p. 151, and tom. ii. p. 184. Two specimens.

Fam. CALAMARIDÆ.

LIONINIA nob.

*Gen. Char.* Frontal stout, hexagonal, somewhat longer than broad; nostrils between two plates; no frenal, one preocular, two postoculars; seven superior labials, the eye resting on the third and fourth; pupil round; scales smooth, quadrangular; tail quite stout, with bifid scutes. Size that of a Calamarian; palatine as well as mandibular teeth apparently of equal length.

LIONINIA VERMIFORMIS nob.

*Spec. char.* Color whitish above, with numerous small brown spots formed by a series of black spots, occupying each scale; in some specimens a narrow black dorsal line, extending from the occiput as far as the extremity of the tail; in others this line is quite indistinct; a spot or blotch upon the occiput, of the same color as that of the body; head brown above, lighter upon the snout; under parts of animal white. Total length, 5 inches, 1 line; tail 8 lines. Ab. scut. 122; a single preanal; subcaud. 26.

*Habitat.* Nicaragua; 3 specimens.

*Gen. remarks.* In the arrangement of the plates upon the head, this genus resembles very closely *Streptophorus*, but the form of the scales is quite different,—which in the latter genus are more or less carinated. It belongs to the family of Calamarians, as defined by Dumeril & Bibron, viz.: Body very slender, rounded, and about the same thickness from the head to the tail. E. G. tome vii. p. 48. It differs, however, from each of the nine genera of which that family is composed. In Calamaria and *Rhabdosoma*, the nostrils open in a single scale, as well as in *Rabdion*, *Homalosoma* and *Carphophis*. In *Elapoidis*, the scales are carinated. In *Aspidura*, the urostega are in a single row.

STENOCEPHALIDÆ. (*Serpens Opistoglyphes*) D. & B.

Gen. CONIOPHANES Hallowell.

*Char.* Head very much flattened, pupil round, supraciliaries not projecting; nostril in a single plate; a postnasal about twice as high as it is long; a somewhat quadrangular frenal; one antocular, two postoculars; a single

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anterior temporal; two internasals; two prefrontals, much longer than the internasals; a frontal longer than broad, occipitals large. Head somewhat broader than neck, posteriorly; scales smooth, lanceolate, 19 or 21 rows; nearly quadrangular upon the tail; anal and subcaudal scutes bifid; abdomen slightly angular; tail long and tapering; posterior tooth much longer than the rest and distinctly channelled; the teeth in the upper jaw increase in length as they recede backward.

CONIOPHANES FISSIDENS nob.

*Spec. char.* 19 rows of smooth scales near the middle; color brownish, approaching to violet, with two somewhat indistinct lateral stripes, and a median dark colored one upon the back; abdomen whitish, with a row of minute black points on each side and upon the tail; a narrow white vitta, commencing on the first labial, passes beneath the eye along the temples, and is lost upon the sides of the neck; another, shorter upon the back, commencing at the occiput. Total length 8 inches; of tail  $7\frac{1}{2}$  inches; circumference 1 inch.

*Habitat.* Nicaragua. One specimen.

OXYCEPHALIDÆ.

DRYOPHIS AENEUS. One specimen.

CONOCERQUES. (Serpens Proteroglyphes.)

ELAPS Schn.

ELAPS MELANOCEPHALUS nob.

*Spec. char.* Entire head, chin and throat black; 16 black rings upon the body, margined with white; 4 distinct rings upon tail; inter-spaces between black rings spotted with black; 200 abdom. scuta; a double præanal; 52 subcaudal; 15 rows of scales.

*Habitat.* Nicaragua. One specimen.

BATRACHIA ANOURA.

RANIDÆ.

CYSTIGNATHUS MELANONOTUS nob.

*Spec. char.* Color black above, black spotted; a black subround spot between the eyes; under parts white, minutely mottled and spotted with brown; body and extremities slender.

*Description.* Head of moderate size, eyes not remarkably prominent, tympanum well developed, tongue obcordate, not notched posteriorly; palatine teeth in two transverse rows; the anterior margin on a line with the posterior margin of the posterior nares; color as stated in the specific character.

*Dimensions.* Length of head 4 lines; greatest breadth 3; length of head and body 9 lines; length of anterior extremities 6 lines; of posterior, 1 inch; of thigh 3 lines; of leg 4; of tarsus 2 lines; of foot to extremity of longest toe  $4\frac{1}{2}$  lines.

*Habitat.* Nicaragua. One specimen; perhaps the young of a larger animal.

HYLIDÆ.

HYLA GRISEA nob.

*Spec. char.* Skin smooth, tongue obcordate, notched posteriorly, palatine teeth in two fasciculi behind the posterior nares; color light grey, a brown above, with darker maculations; length  $1\frac{1}{2}$  inches.

*Description.* Head triangular; snout somewhat acute; nostrils two lines apart; tongue obcordate, slightly notched posteriorly; extremities slender; toes palmate at their base, the webs reaching to the proximal extremity of the second phalanx, tympanum of moderate size, eyes slightly prominent. Color grey or brownish above, with a transverse bar of darker grey between the

eyes; behind this a blotch with irregular margins, resembling the letter W; there are also upon the back irregular blotches of a darker grey than the surrounding surface; thighs mottled posteriorly with black and white, varied with grey in front; legs and tarsi with transverse bars of grey, also arms and forearms; under parts white.

*Dimensions.* Length of head 8 lines; greatest breadth 6; length of head and body 1 inch, 8 lines; length of anterior extremities 1 inch; of posterior, 3 inches; of thigh 8 lines; of leg 11; of foot to extremity of longest toe 11.

BUFONIDÆ.

BUFO MELANOGASTER nob.

*Spec. char.* Supra-orbital ridges slightly developed; internal nares of moderate size; tongue elongate, cordiform, rounded posteriorly; free for rather more than half of its length posteriorly; color grey with a longitudinal row of subround black spots on either side of the median line; extremities varied with black; under parts yellow marbled with black; length 1 inch, 1 line; of posterior extremities 1 inch, 3 lines; of anterior, 8 lines.

*Habitat.* Nicaragua. One specimen.

*Gen. remarks.* Most probably the young of a larger animal.

California.

SAURIANS.

IGUANIENS *Pleurodotes* D. & B.

SCELOPORUS *biseriatus* nob.

One specimen.

BATRACHIANS.

Urodela *Atretoderes* D. & B.

ANAIDES *lugubris* Baird. Six specimens—three adult, three young.

The lateral yellow spots are much more distinct in these specimens than in others in our collection. They are of a bright chrome yellow color, and irregularly disposed. In the young specimens, these spots are indistinct.

TARICHA *torosus* Grans. One specimen, taken near Vallejo, California, Nov., 1855, by Mr. Wright.

BATRACHOSEPS *attenuatus* Gray. Eight specimens—six adult, two young.

Oceania.

CHELONIANS.

CHELONIA *mydas* (young). Seven specimens. In five of these the nuchal plate is bifid.

*Habitat.* Bonin Islands.

SAURIANS.

VARANIDÆ.

VARANUS *bivittatus* D. & B.

One specimen.

*Habitat.* Gaspar Straits.

SCINCOIDIANS ou Sauriens *Lepidosaures* D. & B.

EUPREPIS Wagler.

EUPREPIS *concolor* nob.

*Spec. char.* Nasal plate rounded posteriorly, anterior margin curvilinear;

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supero-nasals rather slender, contiguous; internasal lozenge-shaped; two fronto-nasals in contact; a frontal long with an acute angle anteriorly, its lateral margins nearly straight; two fronto-parietals rather long; an inter-parietal, two parietals; a small freno-nasal, two frenals, the anterior smaller than the posterior and nearly quadrangular in shape; two freno-orbitars; seven superior labials, inferior eyelid scaly; præanal scales unequal, the two middle oblong; scales of neck strongly tricarinate; color uniform brown above, white below. Length 7 inches, 8 lines; of tail 4 inches, 5 lines; of head 10 lines.

*Habitat.* Gaspar Straits. One specimen.

*Gen. remarks.* Dumeril & Bibron describe thirteen species of Euprepis, of which but two have the inferior eyelid destitute of a transparent disk, viz.: E. Sebæ and E. Ernesti. From both of these the species above described differs remarkably. It the latter the supranasals are not contiguous; in the former the carinæ upon the scales are indistinct; it is also a larger animal. The specimen above described was taken on South Brother Island, Gaspar Straits, by Mr. Squires, of the U. S. steamer T. Hancock. It is common. The Malay name is Kædal.

#### ABLEPHARUS. †

##### ABLEPHARUS NIGROPUNCTATUS nob.

*Spec. char.* Internasal four-sided; the sides nearly equal; the posterior angle rounded; but much more acute than in *A. Peronii*; the fronto-parietals quadrilateral; no inter-parietal; two parietals, no naso-frenal; two freno-orbitars; seven superior labials; six præanal scales, the two middle the largest. Color greenish olive above, marked all over with black spots, the spots on the sides agglomerated so as to form a black band extending from the posterior margin of the eye as far as the posterior extremities; extremities and tail black spotted, the black spots smaller and most distinct upon the under part of the tail; chin black spotted; abdomen, as well as ground color of chin and under part of tail and extremities, light green.

*Dimensions.* Length of head 4 lines; greatest breadth  $2\frac{1}{2}$ ; length of body 1 inch, 3 lines; of tail 8 lines.

*Habitat.* Bonin Islands. One specimen. Taken Oct., 1854, by Capt. Rodgers.

ABLEPHARUS PERONII D. & B. Tom. v. p. 814. Three specimens.

*Habitat.* Tahiti.

#### LYGOSOMA.

##### LYGOSOMA VERTEBRALE nob.

*Spec. char.* Lower eyelid transparent; two fronto-parietals; nasal plates quite separate; internasal five-sided; fronto-nasal not contiguous; two fronto-parietals; one inter-parietal; two parietals; frontal long, acutely angular posteriorly, obtusely so in front. Color: Head brown, mottled with darker brown upon the sides; a light colored stripe extending from the occiput as far as the root of the tail; on either side a row of dark brown blotches with minute intervening spots; a broad dark brown colored band on each side, extending from the temple along the side, about half-way down the tail; above this band, the ground color lighter, resembling that of the vertebral band; upper part of tail yellowish, minutely spotted with brown; abdomen white with a tinge of blue; chin, throat and under part of tail yellowish, brown spotted.

*Dimensions.* Length of head 4 lines; greatest breadth 2; length of body to vent 1 inch, 2 lines; of tail 11 lines. Total length 2 inches, 4 lines.

*Habitat.* Sandwich Islands.

*Gen. remarks.* A new and interesting addition to the species, not very numerous, of the genus *Lygosoma*.

## OPHIDIA.

Sub. ord. Opisthoglyphes.

Gen. MEGALOPS nob.

*Gen. char.* Mandibular teeth, increasing in length posteriorly, recurved, nearly straight; two internasals much smaller than the prefrontals; frontal a little longer than broad, pentangular; a frenal; two antoculars, two postoculars; eye resting on the fourth supra-labial; pupil ovoid; eyes very prominent; body slender, much compressed; abdomen angular; tail rather short.

MEGALOPS MACULATUS nob.

*Spec. char.* Twenty-one rows of smooth scales; body presenting numerous sub-quadrangular and oblique blotches above, of a brown color; intermediate spaces white with a tinge of yellow; under surface white.

*Abdom. scuta* 170. A bifid præanal; 61 subcaudal scutellæ.

*Dimensions.* Length of head, neck and body 1 foot, 2 inches, 10 lines; length of tail  $3\frac{3}{4}$  inches.

*Habitat.* Tahiti. One specimen, collected by Mr. Adams.

*Gen. remarks.* The posterior teeth in the upper jaw have been destroyed in the specimen, so that it is impossible to determine the family to which it belongs; most probably of the order Opisthoglyphes; the head is otherwise much injured. A small and not very prepossessing looking serpent.

Sub. ord. Serp. Aglyphodontes ou Azemiophides, *D. & B.*

Gen. AEPIDEA nob.

*Char.* Head long and narrow, broader posteriorly, almost truncate in front; teeth smooth recurved, the anterior, both in the upper and lower jaw, longer than the posterior; the same is the case with the palatines, equally spaced; nine plates upon the top of the head, the prefrontals remarkable for their large size; frontal longer than broad; two large occipitals; body very long, much thicker in the middle, compressed, with smooth scales, broader and shorter upon the back than upon the sides; abdomen angular; tail about one-third the length of head and body; urostega bifid; præanal scute bifid.

AEPIDEA ROBUSTA nob.

*Description.* The teeth are strong, sharp-pointed, much inclined backward, the eyes are of moderate size, the pupil round; the rostral plate is triangular in shape, broader than high, the internasals of moderate size, the prefrontals very large, and more or less rhomboidal in shape; the frontal quite broad anteriorly, its latero-superior angles bevelled, presenting an obtuse angle posteriorly; the supra-oculars long, of moderate breadth behind; the occipitals much longer than broad; nostrils between two plates, large; the posterior the larger of the two; the frenal is remarkable for its great length and unusual position; its upper margin is curved, terminating in a point posteriorly, about one-half of it passing below the antocular; there are ten superior labials; the eye resting on the sixth and seventh; the seventh is larger and of quite a different shape from the others, its posterior portion being prolonged upward and backward to meet the inferior postocular; the antocular is remarkable for its very large size; it is more or less rhomboidal in shape, in contact in front with the prefrontal, above with the frontal and supra-ocular, below by the greater part of its extent with the frenal, and with the fifth and sixth supra-labials; of the two postoculars the superior is somewhat larger than the inferior; the anterior genuals are much larger than the posterior; the neck is long and slender, the body much thicker, compressed *en toit*; scales smooth, those upon the sides lanceolate, the four or five rows upon the back larger; abdomen very angular; tail of moderate length, scales hexagonal; the two

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middle dorsal rows larger than the others; twenty-three rows of scales upon the middle of the body, eight near the origin of the tail. Color olive in spirits, probably green during life; abdomen and under part of tail green.

*Dimensions.* Length of head 13 lines; breadth posteriorly 6; length of back and body 2 feet, 9 inches; of tail 12 inches, 8 lines. Total length  $4\frac{1}{2}$  feet; circumference of body at middle 2 inches. Ab. scut. 236; 1 bifid præanal; 146 urostega.

*Habitat.* Gaspar Straits. One specimen.

Proteroglyphes—Platycerques *D. & B.*

*PLATURUS FASCIATUS* Latreille. One fine specimen. Black bands complete; larger considerably upon the back than abdomen; a white spot on each side of the occipitals. Aricamote of the Tahitians. Captured in Bananas Bay, Tahiti, March 19th, 1855. Presented by Mr. Adams, of Papété. Total length 2 feet, 7 inches; of tail 8 inches; circumference 2 inches, 8 lines.

*PLATURUS FASCIATUS* Var.

*Char.* Snout black; extremity of tail black; forty complete black bands upon the body; besides three incomplete upon the neck; six complete black bands upon the tail; three and a-half rows of scales in black bands upon the back, and one and a-half in the white interspace. Total length 1 foot,  $9\frac{1}{2}$  inches. The largest specimen measures 3 feet, 9 inches in length and 6 inches in circumference. The tail measures  $4\frac{1}{2}$  inches in length by  $1\frac{1}{4}$  inches in height at its base. The coloration corresponds with that of the plate of *Hydrophis colubrina*, in the Fauna Japonica. The abdomen, chin and throat are ochraceous throughout, the bands having disappeared entirely from the belly; 23 rows of scales near the middle of the body; chin and throat covered with scales; ab. scuta. 198, of which the 4 last are bifid; 32 bifid urostega. Besides the above there are two other specimens, from Cleopatra Island, more fully grown, one completely adult, (*Hydrophis colubrina* Schlegel's Fauna Japonica, tab. 10). The only difference which I observe between the latter and Prof. Schlegel's specimen, is that the scales in the latter do not appear to be quite so broad. The markings in the two specimens before us are quite different from those of the younger ones, in which the black and white bands are very distinct and complete, encircling the whole body; but in the one which may be nearly half grown, they are so only upon the tail and the posterior part of the body, the abdomen being of a dull, ochraceous yellow in the greater part of its extent, as well as the neck and throat, somewhat deeper brown opposite the bands; the length of this specimen is 2 feet,  $9\frac{1}{2}$  inches; circumference 3 inches, 3 lines; the extremity of the tail is black; 6 complete bands upon the tail.

Two other specimens of this variety are in the collection, from Loo-Choo, younger than either of the others. In the smaller, which measures 1 foot, 2 inches in length, and 8 lines only in circumference, the black rings are of nearly equal length upon the back and abdomen, being very closely approximated in the latter position; the very tip of the tail in the smallest specimen is white. The specimen marked 243, taken by Capt. Stevens, at Cleopatra Island (north of Ousima), May, 1855.

*PELAMIS* Daudin.

*PELAMIS BICOLOR* Daudin. One specimen.

*Habitat.* Tahiti.

New Holland.

*SAURIA.*

LEPIDOSAURIAN or Scincoid Lizards.

*Saurophthalmes* D. & B.

*LYGOSOMA* Gray.

*LYGOSOMA GUICHENOTI* D. & B.

1860.]

*Habitat.* Sidney. One specimen.

**LYGOSOMA TENIOLATUM** D. & B.

Syn. *Lucerta teniolata* Shaw, Gen. Zool. tom. 3, p. 239.

*Spec. char.* Eyelid scaly, two fronto-parietals; nasals in contact; fronto-nasals separate; ground color of back and upper part of tail yellowish-brown. with a longitudinal band of black along the middle line of the back, commencing at the occiput, and lost upon the tail, bordered with white; a black lateral band on each side, commencing at the nostrils, between which and the eye it is narrow, and passing along the temples and sides of the body, as far as the origin of the tail, where it is continuous with a very narrow black band extending about an inch upon the tail.

## BATRACHIA.

### HYLIDÆ.

**HYLA CYANEA** Daud. One specimen. Sidney (young). Taken Dec., 1853.

### Loo-Choo.

## SAURIA.

**SAURIENS EUNOTES** D. & B.

Sub. fam. *Iguaniens Acrodontes.*

Gen. **DIPLODERMA** nob.

*Gen. char.* Head pyramido-triangular, covered with polygonal carinated scales, of unequal size; nostrils lateral in a large plate near its upper border; a small nuchal crest; no external ear openings; body covered with strongly carinated scales, many of which are quite large; those upon the anterior and lateral parts of the body quite small; tail long and slender, cyclo-tetragonal at base, covered with carinated scales, not verticillate; no femoral or anal pores; body slender, compressed; extremities slender, fingers and toes 5—5; tongue slender, adherent, notched posteriorly; 40 teeth in the upper jaw; five small incisors, two canines on each side, the second more robust and slightly longer than the first; the remaining teeth tricuspid, with obtuse summits, the five first smaller than the others; 34 lower, two canines of about equal length. The teeth, with the exception of the laninaries and intermaxillaries, are all very closely in contact, inclining inward, and firmly imbedded in the jaw, and not along its border; no palatine teeth.

**DIPLODERMA POLYGONATUM** nob.,

*Description.* A longitudinal row of carinated scales upon the snout behind the nostril; frontal region depressed; supraciliary ridges low, separated from each other by two rows of small scales, and communicating with the longitudinal ridge above mentioned by two or three scales on each side; supra-ocular regions convex; no well marked occipital scale; seven superior labials; a nuchal, not elevated crest; no transverse gular fold; neck slightly folded; body slender, covered with carinated scales, some of which, here and there interspersed, are much larger than the others; the axilla, and that part of the body immediately within the arm and above it, covered with very small scales; this patch of small scales contrasting strongly with the larger scales upon the back and sides; chin and throat covered with strongly carinated scales; scales of abdomen triangular, strongly unicarinate, the carina extending the whole length of the scale; upper surface of arms and extremities covered with strongly carinated scales; those on the inner and anterior surface of the arm smaller than those upon the corresponding surface of the forearm; posterior extremities covered with strongly carinated scales; third

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and fourth fingers of nearly equal length; fourth toe the longest; margins of fingers and toes serrated, the under surface protected with transverse scales; soles of feet covered with strongly carinated scales, ending in a spine; palms covered with very small scales.

*Color.* Uniform greenish-olive above, somewhat deeper upon the back, much lighter beneath, with a marked tinge of yellow; eight dark colored bands upon the tail.

*Dimensions.* Length of head 9 lines; greatest breadth 5 lines; length of body  $1\frac{1}{2}$  inches; tail  $5\frac{1}{2}$  inches; total length 7 inches 9 lines.

*Habitat.* Amakarima Island. One specimen.

*Gen. remarks.* Lyriocephalus, Otocryptus, Ceratophorus, and Phrynocephalus are Iguanian Acrodont saurians, with ears concealed beneath the integument; but Diploderma differs from each of these. Lyriocephalus has the snout surmounted by a rounded protuberance; the dentition of Otocryptus is altogether different, and in Ceratophorus, as its name indicates, the snout is prolonged into a sort of horn. See D. & B. tom. v. p. 433. The head of Phrynocephalus is nearly circular; the tail is much shorter, and the body is covered all over with minute scales, being quite a different animal in its general appearance.

#### OTOCRYPTIS Weig.

Among the saurians in the Loo-Choo collection is a very small Acrodont Iguanian, no doubt a young animal, which appears to belong to a genus very near if not identical with the Otocryptus of Weigmann. The form of the head, however, is different from that of Otocryptus, as described by Dumeril & Bibron, and the number of molar teeth is less, viz.:—eight instead of twelve. The specimen, small as it is, is much mutilated, and otherwise injured, but the following characters can be distinctly made out.

*Gen. char.* Head rounded, and high posteriorly, the anterior slope more gradual than the posterior, the front and vertex being nearly on a line; snout covered with polygonal scales; supraorbital ridges distinct; eyelids covered with carinated scales of nearly equal size; occiput covered with polygonal scales, partly smooth, partly carinate; temples covered with carinated scales; eyelids covered with small scales. The incisor teeth on each side separate, a conical canine, and eight tricuspid, the first three the smallest, the last two the largest; the same number in the lower jaw; ears concealed by the integument; body covered with scales arranged in transverse rows; five fingers without serratures, the fourth finger a little the longest, all armed with recurved nails; tail slender.

*Dimensions.* Length of head 4 lines; of neck and body  $6\frac{1}{2}$  lines; of tail (mutilated) 10 lines; length of anterior extremities 6 lines; of posterior

*Habitat.* Loo-Choo. One specimen. Caught Nov. 1854, by McKnight.

*Gen. remarks.* But one species of Otocryptus is described by Dumeril & Bibron, viz.:—*O. bivittata* Weig., the habitat of which is unknown.

#### GECKOTIDÆ.

Lezards Geckotiens, ou Sauriens Ascalabotes D. & B.

Gen. HEMIDACTYLUS.

Sect. DACTYLOTELES D. & B.

Sub. div. A.—*Dact. fissipedes*.

HEMIDACTYLUS MARMORATUS nob.

*Spec. char.* Mental plate pentangular, small; behind these several series of unequal scales, larger than those upon the throat; a transverse row of plates immediately behind the mental and first infra-labials; the two middle much larger than the lateral ones; eleven supra-labials on each side; ventral 1860.]

plate pentangular, much broader than high, presenting an angle posteriorly; scales upon the muzzle and in front of the orbits, nearly equal, small; head covered with small granulations; five rows of very small circular tubercles on each side of the back above; a row of seven pores in front of the anus; color greyish, marked all over with black; abdomen white; chin and throat white, marked with brown.

*Dimensions.* Length of head 7 lines; greatest breadth  $4\frac{1}{2}$  lines; length of head and body 1 inch 8 lines.

*Habitat.* Loo-Choo. One specimen.

#### HEMIDACTYLUS INORNATUS nob.

*Spec. char.* Mental plate triangular, large; but two plates immediately behind the mental, large and quadrangular; immediately behind them two others, smaller, and also more or less quadrangular; rostral plate broader than high, not presenting an acute angle posteriorly; the plates behind it rather small, with one intermediate, eleven supra-labials, the last six the smallest; but two rows of circular tubercles on either side of the median line; no tubercles upon the head; scales small, and for the most part equal; color uniform drab above, with a few dark colored maculations; under parts white.

*Dimensions.* Length of head six lines; greatest breadth four lines; length of body 1 inch 3 lines; of tail

*Habitat.* Loo-Choo. One specimen. Caught in a shed, Nov. 1854, (W. S.)

*Gen. remarks.* This species is readily distinguished from the preceding by the different shape and size of the mental plate, and arrangement of the scales posterior to it, and the presence of pores in front of the anus.

#### SCINCIDÆ.

#### PLESTIODON D. & B.

#### PLESTIODON MARGINATUS nob.

*Spec. char.* Rostral plate comparatively high; internasal presenting an obtuse and rounded angle posteriorly; fronto-nasal not in contact, being separated by a considerable interval; frontal plate heptagonal, more or less truncate anteriorly; seven superior labials; olive colored above, with a tinge of red upon the head, and a broad, brickdust colored stripe, commencing upon the temples, and extending along the sides of the neck, and the body, as far the root of the tail; under parts silvery white. Twenty-five rows of scales; five in front of the tail.

*Dimensions.* Length of head  $11\frac{1}{2}$  lines; greatest breadth 8 lines; length of body 2 inches 8 lines; of tail 2 inches 9 lines; of anterior extremities 11 lines; of posterior 15 lines.

*Habitat.* Ousima, Japan, and Loo-Choo Islands.

*Gen. remarks.* The specimen from Loo-Choo is much smaller, and evidently the young of the same species. The lateral stripe of brown is bordered with obscure white, and there is a vitta of the same color running along the middle of the back. This species, with the exception of the lateral band bears a striking resemblance to *Plestiodon laticeps* of the Southern U. S., but the red upon the head is not near so deep, and the shape of the rostral and frontal plates is quite different, and the fronto-nasals are closely in contact. The smaller specimen, caught April, 1855, by Mr. Stimpson. The larger, May, of the same year.

#### OPHIDIA.

#### CROTALIANS.

#### BOTHRUPS FLAVOVIRIDIS nob.

*Description.* The head is large, triangular in shape, covered above and below with smooth scales, in this respect differing from typical *Bothrops*, in which

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the scales upon the top of the head are carinate: eight superior labials; third and fourth the largest; seven temporals; the two anterior, of which the superior is the larger, separated from the orbit by a row of small scales; the plates over the eyes are of moderate size, single; the rostral plate is broader than high; the head is much larger posteriorly than in front, where it is somewhat truncate; neck much contracted; body rather slender, presenting near the middle twenty-seven rows of lanceolate carinate scales, the carinæ extending the whole length of the scale, and the rows running very obliquely; besides these carinated scales there are two other inferior rows, running very obliquely, which are smooth, the total number of rows of scales being thirty-one; the scales upon the tail are much broader than those upon the back; the ground color of the head above is ochraceous yellow, presenting numerous dark colored lines, probably green during life; a narrow vitta of the same color extends from behind the eye to the posterior and external angle of the head, a short distance above the commissure of the jaw; a bar, broader than the rest, is seen on each side of the inner aspect of the occiput, bending inward, and extending for a space of two and a half inches along the side of the neck; the jaws and throat are yellow (straw colored), as well as the abdomen; the under part of the tail is also yellow, but presents a number of bluish colored maculæ on each side; the ground color of the body above is dirty yellow, with longitudinal dark colored interrupted bars on each side of the median line, with intervening spaces of yellow; upon the tail the dark colored portions present the form of double triangles, united at their bases, upon the median line, with a subround yellow spot in the centre, and having upon their sides triangular interspaces of yellow; eighty-one urostega; ab. scuta sixty-one. The specimen being much mutilated, it is difficult to ascertain with precision its total length.

*Habitat.* Amakarima Island (one of the Loo-Choo group.)

#### PROTEROGLYPHES.

##### PLATURUS FASCIATUS.

One specimen, young, captured at Nara, Loo-choo, June, 1853, by W. Heine.

#### AGLYPHODONTES.

##### Gen. EURYPHOLIS nob.

*Char.* Scales and plates of the head polished, the plates of the head especially; eyes lateral, projecting; pupil round; body slender; tail short, with bifid scutella; nine plates upon the top of the head; the internasal small; the prefrontals large, the frontal larger than broad, pentagonal; nostril between two plates; a rather narrow frenal; one preocular; two postoculars; eight supra-labials; the eye resting on the fourth and fifth; scales hexagonal, semicarinate upon the back.

##### EURYPHOLIS SEMICARINATUS nob.

*Spec. char.* Uniform green above, white beneath; total length 1 foot  $7\frac{3}{4}$  inches; of tail 4 inches 5 lines; 189 sb. scut.; 1 bifid præ-anal; 77 sub. caud.

*Description.* This serpent has very much the general appearance of a *Leptophis*, but the tail is shorter; the scales upon the back are strictly hexagonal, those upon the sides have their posterior margins somewhat rounded; the three inferior rows on each side are smooth; of the plates upon the head, the posterior nasal is larger than the anterior; the frenal longer than high, resting upon the supralabials; the superior postocular larger than the inferior; three temporal plates; one in front immediately behind the postoculars and between the seventh supralabial and the occipitals, the other two, one above and the other behind these, between the occipital and the eighth supralabial plate; the frontal presents an acute angle posteriorly; the occipitals, of moderate size, pentangular; the neck is of nearly the same

thickness as the posterior part of the head ; the scales upon the tail, with the exception of the inferior row on each side, which is smooth, are also semi-carinate ; fifteen rows of scales upon the middle of the body ; sixteen upon the neck (scales more narrow) ; eight at the origin of the tail.

*Dimensions.* Length of head 6 lines ; breadth 4 lines ; circumference of body at middle 14 lines.

*Habitat.* Loo-Choo. Caught by Mr. Wright, near Napa, Nov. 1854. Two specimens. Another from Japan.

In the collection are no turtles from the Loo-Choo Islands.

## BATRACHIA.

Urodela.

Fam. ATRETODERES.

Gen. TRITON Laurenti.

TRITON SUBCRISTATUS Schlegel.

*Syn. Salam. subcristata* Schlegel, Fauna Japonica, p. 123, pl. iv. fig. 3.

*Cynops subcristatus* Tschudi, Class. der Batrachier, p. 94, pl. 2.

*Cynops pyrrogaster* Gray, Cat. Brit. Mus. p. 25, No. 1.

*Spec. char.* Head flattened ; skin granular ; back above, in some specimens, presenting scattered yellow spots upon the back and sides ; abdomen orange, with numerous black spots, resembling those of *Triton cristatus* ; chin and throat orange ; black spotted ; under part of tail orange ; tail long, much compressed.

*Dimensions.* Length of head six lines ; greatest breadth 6 lines ; length of neck and body 1 inch 9 lines ; of tail 2 inches  $8\frac{1}{2}$  lines ; total length 4 inches  $11\frac{1}{2}$  lines.

*Habitat.* Specimens marked No. 5, found in the Paddyfields at the Amakarima Isle, Loo-Choo, April, 1855, by Mr. Squires and Mr. Macomb. Other specimens, marked 53 in the Catalogue, from Ralousima. Those from this place, the northern half of Ousima proper, are yellow beneath, without the large black spots upon the abdomen.

*Gen. remarks.* This species resembles much *Triton cristatus* of Europe, but wants the white, minute points upon the sides and chin, and the tail is much longer. According to Prof. Schlegel, the osteology of the head is also different, and the number of vertebrae less, there being sixteen in *Triton cristatus*, and but fourteen in the present species. We have compared these specimens with one from Japan, due to the generosity of the Administration of the Garden of Plants, and find no difference except that the black spots upon the abdomen are not so numerous in the Japanese specimen, and the tail is shorter and less compressed at its root. The coloration above, in the Japanese specimen, is brown ; in those from Amakarima Island, a deep black. We had proposed for this dark colored Triton, with its narrow and much compressed tail, the name *ensicauda*, but, without a greater number of specimens for comparison, we are unwilling, at present, to consider it a distinct species.

Anoura.

HYLIDÆ.

HYLA CYANEA Daudin (young). One specimen.

RANIDÆ.

RANA RUGOSA (young). Two specimens. Taken at Loo-Choo, April, 1855, by Mr. Stimpson.

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## Japan.

No turtles were collected at Japan, and it is to be regretted that we have no specimen of the *Megalobatrachus* among the Batrachians. For a fine figure of the latter, see the *Fauna Japonica*, and for the plates of *Trionyx* and *Emys*, the *Abbildungen* of Prof. Schlegel.

## SAURIANS.

## AUTOSAURIANS.

Sub. Fam. *Autosaures calodontes* D. & B.

## LEIODACTYLES.

Gen. TACHYDROMUS Daud.

TACHYDROMUS SEXLINEATUS D. & B. Five specimens.

The ground color of four of these specimens above, is uniform brown, interspersed with small black spots; in the remaining one, green, the superior lateral vitta bordered inferiorly with black. During life, dark coppery brown; below white, like white lead. W. S.

*Habitat.* Simoda, Japan, Island of Nippon, May, 1855. Common among grass in lowlands. W. S.

TACHYDROMUS JAPONICUS D. & B. Three specimens.

*Erpet. Gen. tom. v. p. 161.*

*Habitat.* Ousima, Japan. Caught May, 1855, by Mr. Stimpson.

## SCINCIDÆ.

PLESTIODON D. & B.

There is, in the collection of Com. Rodgers, but one specimen of five-lined *Plestiodon*, which, both by Prof. Schlegel and Dumeril & Bibron, have been considered identical with the *Plestiodon quinquelineatus* of the U. S. Prof. Schlegel states that he had before him two complete suites of the North American and Japanese species, composed each of thirty individuals of all ages, the one collected at Japan, by MM. de Siebold and Bürger, the other by Prof. Trout, upon the banks of the Tennessee river. The examination of this large number of specimens proved to him that there existed not the slightest difference between these individuals, brought from points of the globe so distant the one from the other, although situated under nearly the same parallel. (*Fauna Japonica, Reptilia, p. 99.*)

Dumeril & Bibron say, that having examined two of the Japanese specimens, the North American species exists also in Japan. (*Erpet. Gen. tom. v. p. 710.*) The most striking difference that we observe in the single specimen before us, consists in the presence in the one from Japan, of a plate above the anterior frenal, which is wanting in all the others; this doubling may be, and probably is, an accident, and an abnormal division of the anterior frontal plate. There are, also, but twenty-four rows of scales in the Japanese specimen. The coloration of the specimens from these different localities is very much alike, except that the vertebral line does not bifurcate upon the head in that from Japan. The fronto-nasals are not in contact, but in some of the North American specimens this is the case, in others not. We have always doubted, notwithstanding the high authority of the authors quoted, the absolute identity of species so remote. Since the above was written, another specimen has been placed in our hands, in which there is no naso-frenal, only two frenals, an anterior and a posterior, and there is a difference in the number of rows of scales, there being twenty-seven in the Japanese, and thirty-two in the North American. In a specimen from South Carolina, presented by Dr. Blanding to the Academy, there are thirty-two rows: in one from the Loo-Choo Islands, by Dr. Joseph 1860.]

Wilson, U. S. N., but twenty-four. The scales upon the back, in the Loo-Choo specimen, are broader than those in the one from South Carolina. The fronto-nasal and fronto-parietal much smaller in the Loo-Choo specimen, the former less than half the size; in the latter the frenal is more high and narrow; in the one from South Carolina, there is a naso-frenal, a plate which does not exist in the specimen from Loo-choo. In the large North American specimens in the Green collection, we count twenty-nine and thirty rows of scales; both these have a naso-frenal in front of the anterior frenal. In a specimen from Arkansas, presented by Mr. Pitcher, we find twenty-nine rows of scales, and no naso-frenal, a near approach to the Japan; but the scales upon the back are evidently less broad. In another specimen from South Carolina, presented by Prof. Leidy, we find thirty-two rows, with a naso-frenal; scales of the back high. In another from South Carolina, presented by Mr. Reid, we find twenty-nine and thirty rows. In the specimen from Japan, which is young, the ground color between the stripes is jet black; in those from Loo-Choo, which are more mature, the color above is olive, with a dark colored lateral band on each side, between the lateral stripe; the most constant difference determined by the above comparisons, therefore, would appear to be the less number of rows of scales in the Japanese, the greater breadth of the dorsal rows, and the absence of the naso-frenal plate. We have had, however, but three Asiatic specimens for observation, but would suggest whether they be not really distinct species from the North American, although resembling each other so much in color; and in case future observation should decide this to be the case, would propose for the Japanese species the name *PLESTIDON LATISCUTATUS*.

Gen. *LYGOSAURUS* nob.

*Char.* Nostril in a single plate; neither supero-nasal, nor naso-frenal; two fronto-nasals; an interparieto-fronto parietal; two parietals; a first and second frenal; two freno-orbitars; six superior labials; body covered with hexagonal scales, tricarinate upon the back; fingers and toes 5—5; the two inner and outer ones quite short; tail cyclo-tetragonal at base, longer than head, neck and body.

*LYGOSAURUS PELLOPLEURUS* nob.

*Spec. char.* Light brown above, with four longitudinal rows of minute black spots, extending a considerable distance upon the tail; a lateral dark-colored band on each side, commencing behind the eye and extending the whole length of the back and body, being lost upon the tail; abdomen and under part of extremities white; the scales upon the under part of the tail spotted with black. Total length 3 inches, 7 lines; tail 2 inches.

*Description.* The size of this delicate-looking little Lepidosaurian is about the same as that of *Lygosoma laterale*; the head is small, the snout rather pointed, the supra-orbital regions somewhat prominent; the internasal is broader than long; the fronto-nasal single, truncate posteriorly, presenting three facets in front, the middle one broad; frontal truncate anteriorly, the edges bevelled, angular posteriorly; the fronto-parietals and parietals present nothing remarkable, but the interparietal, instead of being placed exclusively between the parietals, lies also and for the greater part of its extent between the fronto-parietals; it is narrow in front, broad behind; the inferior eyelid is protected by two rows of scales, the inferior row quite large, beneath which, and above the supero-labials, there are two interrupted rows of triangular scales; four supra-orbital scales; auricular openings pyriform in shape, with no scales upon their borders; scales hexagonal, those upon the abdomen and sides smooth, those upon the back tricarinate; 24 rows of scales, six in front of the arms and of nearly equal size; extremities slender, each provided with

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a nail, the third finger the longest, the first very short, almost rudimentary, the second and fifth of nearly equal length; the first two quite short, the fourth the longest; fingers and toes not denticulated upon the edges, the inferior surface covered with transverse scales. Color and dimensions as above.

*Habitat.* Ousima, Japan. Two specimens,—one from Loo-Choo.

*Gen. remarks.* Although the two animals resemble each other so much in their general form, the arrangement of the plates upon the head is quite different. In *Lygosoma laterale* the scales are quite smooth.

### OPHIDIA.

Fam. TYPHLOPIDÆ.

OPHTHALMIDIUM D. & B.

*Char.* A narrow rostral, bent upon the snout; a supra-ocular; a pair of preoculars; a pair of nasals; a pair of oculars, with the eye distinct at the upper part; a pair of fronto-nasals; a pair of post-oculars; an anterior frontal; a frontal; a pair of parietals; an interparietal; eyes latero-superior; body covered with smooth hexagonal scales; tail very short.

OPHTHALMIDIUM TENUE nob.

*Spec. char.* Color uniformly brown above, lighter below; 10 rows of subcaudal scales; 282 horizontal rows, 20 longitudinal rows, 4 pair of supralabials; nostrils very small, in the suture between the nasal and fronto-nasal plates, beneath the extremity of the snout.

*Dimensions.* Length of tail  $1\frac{1}{2}$  lines; of head and body 5 inches. Total length 5 inches,  $\frac{1}{2}$  line.

*Habitat.* Hong-Kong, China. Three specimens.

Fam. AGLYPHODONTES D. & B.

Gen. ELAPHIS Aldrovandi.

*Char.* Nostrils between two plates; a frenal; two antoculars, the inferior small, intercalated between the third and fourth supra-labials; the one resting on the fourth and fifth; two internasals, smaller than the prefrontals: a frontal longer than broad; three temporals on each side; scales elongated, lanceolate, weakly keeled; tail of moderate length, scutes bifid.

ELAPHIS BILINEATUS nob.

*Spec. char.* Nine rows of scales, the dorsal ones carinate; color black, as in *Coryphodon constrictor*, but with two white lines on each side of the neck, extending some distance along the body. Total length 3 feet, 4 inches.

*Description.* This species, in its general conformation, has a marked resemblance to *Coryphodon constrictor* (Bascaniou B. & G.), the pupil is round, the supraciliaries projecting very slightly, the superior antocular much excavated; of the supralabials the sixth and seventh are the largest; the frenal is not elongated, but rhomboidal, with its posterior and inferior angle prolonged; of the two anterior temporal plates the superior is the more narrow and smaller; the frontal plate is pentangular, less excavated laterally than in *Coryphodon constrictor*; the three inferior rows on each side are carinated, the carinae not extending the whole length of the scale; the præanal scute is bifid; abdomen angular; posterior teeth longer than the anterior. Ab. scut. 193: subcaud. 1 bifid præanal; 76 subcaud.

*Habitat.* Volcano Bay, Jesso. One specimen, caught by Dr. Morrow, May 30th, 1854.

Gen. LEPTOPHIDIUM nob.

*Char.* A rostral, two internasals much smaller than the prefrontals; frontal longer than broad, presenting an acute angle posteriorly; occipitals large; 1860.]

nostril between two plates, a frenal; two antoculars, and two postocular plates; eye margined inferiorly by the fourth and fifth supralabials; scales quadrangular smooth; a double præanal plate; tail short with bifid scutes; eye rather large, pupil ovoid.

LEPTOPHIDIUM DORSALE nob.

*Spec. char.* Nineteen rows of smooth scales; eight superior labials; the fifth in contact with the inferior postocular; an oblique brownish band behind the eye; another on each side of the head, passing across the temples; inferior and superior labials, rostral and internasals with dark-colored maculations; a transverse bar across the prefrontals posteriorly; two longitudinal brownish stripes upon the neck, commencing at the occipitals; a series of transverse light brown fasciæ upon the anterior third of the dorsum, about 12 in number, bordered with light yellow; fawn color above, white below, with a tinge of green. Ab. scut. 100; 1 bifid præanal; 85 subcaud.

*Dimensions.* Length of head 6 lines; greatest breadth 3; length of body  $8\frac{1}{2}$  inches; of tail 2 inches, 3 lines. Total length 11 inches, 3 lines.

*Habitat.* Hakodadi, Japan. One specimen, taken on a hill-side, near Hakodadi, Island of Jesso, June, 1855, by W. Stimpson.

LEPIDOCEPHALUS nob.

*Gen. char.* Head rather short and broad behind triangular; temples swollen; two internasals, two prefrontals, larger than the internasals; a frontal, as in *Coronella*; nostril between two plates; a narrow frenal; a preocular; two postoculars; the eye resting on the fourth and fifth supralabials, four or five lines from the extremity of the snout; posterior superior maxillary teeth much longer than the others; scales upon the back quadrangular, with rounded posterior margins, semicariuate; tail of moderate length, with bifid scutes.

LEPIDOCEPHALUS FASCIATUS nob.

*Spec. char.* Eight supralabials; 17 rows of scales, the four inferior rows smooth; a series of thirty-five dark-colored bands upon the body; nine upon the tail; tip of tail black; 216 ab. scut.; a single præanal; 65 subcaud.; length 3 feet.

*Description.* General appearance that of *Coronella*; the pupil is round; there are seven temporal plates; of the superior labials the posterior and superior angle of the third is prolonged so as to touch the eye in front, occupying the position of an inferior preocular; the sixth and seventh supralabials are the largest; the neck anteriorly is of nearly the same thickness as the head; the body moderately robust, the abdomen angular; the tail rather slender, not pointed at the tip; throat and abdomen white; a series of black longitudinal blotches upon the under surface of the tail at its middle; superior labials margined with black; a black quadrangular blotch behind the eye: upper part of head black, intermingled with yellow spots; a narrow transverse band upon the neck with an anterior prolongation; the interspaces between the black bands upon the back white or yellowish.

*Dimensions.* Length of head 1 inch; greatest breadth  $7\frac{1}{2}$  lines; length of body 2 feet,  $7\frac{1}{4}$  inches.

*Habitat.* Japan and Loo-Choo. Two specimens from each locality. These from Loo-Choo captured by Mr. Heine.

Gen. PROTERODON nob.

*Char.* The anterior teeth longer than the posterior, with a marked interval between the first, second, third and fourth of the upper jaw; two internasals; two prefrontals; a frontal, as in *Coronella*; a frenal; one antocular; two postoculars; four temporals; the superior of the two anterior quite small and

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narrow-pointed behind; eye resting on the fourth and fifth supralabial; scales quadrangular; those of the back slightly carinate; præanal scute bifid; tail rather short, with bifid scutes.

PROTERODON TESSELLATUS nob.

*Spec. char.* Twenty-one rows of scales; three or four rows on each side smooth; the others, with a slight carina, extending half-way along the middle; olive-colored above; throat yellow, black spotted; abdomen orange, tessellated with black; length 3 feet.

*Description.* The head is rather long, flattened behind, pupil round, the supraciliary not projecting over the eye; the frenal is quite small; of the two postoculars the superior is the larger; the temporal plate immediately behind them is remarkable for its form; it is quite narrow and somewhat lanceolate in shape; of the two posterior temporals the upper is much longer than the inferior; there are eight supralabials, though this is somewhat doubtful from the diseased condition of the three anterior ones, the seventh being the largest; the scales posterior to the occipitals (about a dozen rows) are quite smooth; the neck is narrower than the head; the body moderately stout; the tail rounded above and upon the sides, flattened beneath, tapering to a point. Ab. scut. 211; subcaud. 73; a double præanal plate.

AMPHIESMA TIGRINUM D. & B., Erp. Gen. t. vii. p. 732.

*Tropidonotus tigrinus* Schlegel, Fauna Japonica, p. 86. Two specimens caught at Nippon, Japan, May, 1855, by Mr. Stimpson. Ab. scut. 162; 1 bifid præanal; subcaud. 175

*Gen. remarks.* This is evidently the *Tropidonotus tigrinus* of Prof. Schlegel, whose remarks in regard to the differences between the one under consideration and the *Tropidonotus natrix* of European authors, are perfectly correct. *Trop. tigrinus* has a great resemblance to the *Trop. hydrus* of Fitzinger, of which we have eight specimens in the Bonap. Coll., the markings and the number of rows of scales are the same in both; but the shape of the head is very different. That of *tigrinus* is broad, and the snout is rounded, but in *hydrus* it is more acute. The two serpents in fact belong to different genera.

BATRACHIANS.

RANIDÆ.

RANA RUGOSA Schlegel. Fauna Japonica, p. 160, tab. 3, fig. 3 and 4, D. & B., Erpet. Generale, tom. viii. p. 368.

Four specimens of small size, presenting the conical pustulations upon the longitudinal elevations upon the back described by Dumeril & Bibron, three other specimens from Ousima, and two from Simoda, of the size of *Rana halecina*; with vocal vesicles very distinct. The specimens from Ousima, and two larger ones from Simoda, are perfectly white beneath. Taken in the Paddy fields at the island of Ousima, May, 1855, W. S. Cream colored and greenish mottled. The large specimens from Simoda, Island of Nippon, were found in the Paddy fields back of the town, May, 1855. This species has bladders, one on each side of the neck behind the jaws, which swell in globes one-half an inch in diameter; and when the croaking noise is made, they as rapidly fall flat against the neck. Above dark greyish, with darker brown spots on the hinder legs; sides yellowish brown; belly white; fore legs inclining to flesh color; back sometimes streaked with black, as in our Pickerel frog. Other specimens much smaller, marked 13 in the catalogue, were found along the shores of mountain streams, at Simoda, Japan, May, 1855. Above very dark brown, irregularly and distantly punctate with black. Below pale greyish, mottled with white. Another specimen of *rugosa* by Dr. Morrow from Simoda.

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## RANA MARMORATA nob.

Two specimens of a frog, the coloration of which, though the animal is not so large, corresponds with the figure of *Rana esculenta*, as given in the Fauna Japonica. It differs, however, very considerably from the numerous specimens of *Rana esculenta* in the Bonap. collection of the Academy. The spots upon the back are not so regular and well defined as in *esculenta*, and there exist on each side of the ventral line four or five longitudinal elevations, resembling somewhat those of *rugosa*. The sides are marbled with black, and there is a black band extending from the front of the eye to the tip of the snout; extremities black spotted; thighs posteriorly marbled with black; under parts white. Length 1 inch 9 lines; of anterior extremities 1 inch; of posterior 2 inches, 10 lines.

*Habitat.* Simoda. Five specimens obtained by Dr. Morrow.

A small specimen of a *Rana* not figured in Schlegel, perhaps the young of a large species is.

## RANA NIGROMACULATA nob.

*Spec. char.* Vomerine teeth in two patches between the internal nares; olive colored, with numerous black spots upon the back, of considerable size, but varying in this respect; a black band extending from the eye to the snout on each side; legs and tarsi banded with black, thighs mottled posteriorly with blotches of the same color; under parts white; web of the toes extending as far as the base of the antepenultimate phalanx, except in the third, in which it reaches to the base of the proximal extremity of the third phalanx.

*Dimensions.* Length of head and body 1 inch; of anterior extremities  $\frac{1}{2}$  inch; of posterior  $1\frac{1}{4}$  inches.

*Habitat.* Japan. One specimen discovered by Dr. Morrow.

In the collection of reptiles from Japan, by Dr. Morrow, is one specimen of a *Rana* figured in Schlegel, considered by Prof. S. as identical with the *Rana temporaria* of Europe. This species, however, has even a stronger resemblance to the *RANA SYLVATICA* of the United States, with which it appears to be identical, and from which, indeed, I do not find any marked points of difference. The large blotch behind the ear, and the longitudinal black mark upon the arm exist, in all these specimens, and the longitudinal ridge on each side of the body. Length of head and body 1 inch 11 lines; of thigh 1 inch 2 lines; of leg 1 inch 2 lines; of tarsus 7 lines; of foot to extremity of longest toe 1 inch; of arm 5 lines: of forearm 5 lines; of hand to extremity of longest finger 5 lines. Found in the Paddy fields back of Simoda, Island of Nippon, Japan, May, 1855. This species has no cheek bladder. (Notes of Mr. Stimpson.)

## HYLIDÆ.

*HYLA VIRIDIS?* Laurenti.

Syn. *Hyla arborea* Schlegel, Fauna Japonica, p. 112, pl. 3, fig. 526.

*Habitat.* Simoda, Japan; found in the mud in the Paddy fields back of Simoda, Island of Nippon, May, 1855. The color during life, according to Mr. Stimpson, is bright light green above. A golden band along each side of the head, including the eye; sides minutely sprinkled with copper color; belly white; puffs at the throat. Five specimens.

*Gen. remarks.* We can find no marked difference of structure between this animal and the *Hyla viridis* of Laurenti, but no mention is made in the description of the former of the golden band along each side of the head.

## POLYPEDATES VIRIDIS nob.

*Char.* Head large; snout truncate; eyes large; nostrils small, two lines  
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apart; canthus rostralis slightly excavated; the ridge between the snout and the eye separating this region from the upper part of the head, presenting a slight convexity inward: tongue cordiform, notched posteriorly, eustachian foramina more oval in shape than the posterior nares; vomerine teeth in two transverse rows, on a line with the anterior margins of the posterior nares, inclining backward toward each other, separated by an interval of more than half a line; skin smooth above, of a cærulean color in alcohol; the posterior part of thighs, legs and tarsi whitish; under parts white, the abdomen very much granulated; fingers and toes semipalmate; a series of dark colored spots upon the flanks.

*Dimensions.*—Length of head and body 1 inch 4 lines; breadth of head  $6\frac{1}{2}$  lines; of arm 4 lines; of forearm  $3\frac{1}{2}$  lines; of hand to extremity of longest finger 5 lines; of thigh 8 lines; of leg 8 lines; of foot to extremity of longest toe 6 lines.

*Habitat.* Loo-Choo. Taken at Loo-Choo, December, 1854, by Mr. Wright. Color during life pale green above, below pale red; no dark line of separation between these colors. (Notes of Mr. Stimpson.)

*Gen. remarks.* This species evidently belongs to the same genus as *Polypedates megacephalus*, found at Hong Kong, and remarkable for the two patches of rugosities upon the vertex; the animal, however, is quite different from the *Polypedates rugosus* of Ceylon and the Philippines.

#### POLYPEDATES BURGERI D. & B.

Erpet. Generale, tom. viii. p. 521.

Syn. *Hyla Burgeri* Schlegel, Fauna Japonica, p. 113, pl. 3, fig. 728. Ousima, Japan. . A small specimen from the Loo-Choo islands.

#### IXALUS Tsch.

#### IXALUS JAPONICUS nob.

*Char.* Head of moderate size; nostrils small, lateral,  $\frac{1}{4}$  line apart; body rather slender, much more so than in *Hyla versicolor*; posterior extremities quite long, webs reaching to the antepenultimate phalanx; color ash grey above, in some specimens very pale; a transverse blotch upon the head, with a posterior triangular prolongation; several other blotches upon the back, one presenting the form of the two halves of the letter X, separated by a horizontal line. In one of the specimens the transverse bar is wanting; a brownish spot in front of the shoulder; a narrow oblique band behind the tympanum; lower lip spotted with black; upper lip also, but the spots are broader and more oblique; an oblique fold above the tympanum, commencing behind the eye; tympanum distinct, of a brownish color; upper part of head and anterior part of body presenting a number of tubercles; canthus rostralis concave; ridge between the eye and the nostril presenting a convexity inward; snout rounded, and somewhat acute; abdomen and under part of thighs posteriorly granulated.

*Habitat.* Japan.

*Gen. remarks.* This species corresponds very nearly with the description of *Ixalus semifasciatus* D. & B., in tom. viii. p. 523 of the *Erpetologie Generale*. It is there mentioned, however, that the palmation of the toes does not extend beyond one-half of their length. In the Japan specimens it would appear to be larger. In Schlegel's figure, which represents a much smaller animal, there are no webs to the toes. *Ixalus semifasciatus* is an inhabitant of Java. Future observation must determine whether the two animals be identical or not.

#### China.

There are in the collection no Chelonians from China, and but three Saurians, 1860.]

viz., a Geckotian, an Agamian, and a Scink. Except a few serpents, all the other specimens are Batrachians, which appear to abound in that region of the globe.

SAURIA.

GECKOTIDÆ.

HEMIDACTYLUS Cuv.

Sect. DACTYLOTELES D. & B.

Subdiv. A.—*Dactyloteles fissipedes* D. & B.

HEMIDACTYLUS PUMILUS nob.

*Char.* Supraorbital regions not remarkably prominent; frontal region covered with granulations, larger than those upon the vertex and occiput; granulations upon body uniform or nearly so; ventral plate with fine facets, a little broader than long; in contact with the ventral are two plates, the first in contact with the first supralabial, the second with the second, the anterior larger than the posterior, and pentangular in shape; eleven supralabials: eight inferior labials; no pores in front of arms or along the thighs; color greyish: thighs with yellow above, the latter color predominating upon the head, with numerous dark colored transverse marmorations upon the back; under parts white.

*Dimensions.* Length of head 6 lines; breadth  $3\frac{1}{2}$  lines; length of neck and body  $1\frac{1}{2}$  inches; of tail 1 inch  $4\frac{1}{2}$  lines.

*Habitat.* Hong Kong. One specimen.

LEZARDS IGUANIENS ou Sauriens Eunotes D. & B.

Gen. CALOTES Kaup.

CALOTES VERSICOLOR D. & B. Two specimens. Cum-Sing-Moon, China. Dr. MORROW.

LEZARDS SCINCIDIENS ou Sauriens Lepidosaures.

*Saurophthalmes* D. & B.

EUMECES QUADRIVIRGATUS nob.

*Spec. char.* Supra-nasals but little extended at their external margin: neither slender nor much developed; internasal remarkable for its great breadth compared with its length, measuring  $1\frac{1}{2}$  lines transversely, and about  $\frac{1}{2}$  a line longitudinally; fronto-nasals in contact, their internal margins truncate; frontal hexagonal; the anterior and posterior angles obtuse, somewhat broader in front than behind; two fronto-parietals in contact, each with five distinct facets; interparietal short and broad; seven superior labials; a freno-nasal, a first and second frenal, the second much larger than the first; two freno-orbital plates, each of moderate size; twenty rows of small, hexagonal scales; body slender; tail cyclo-tetragonal at base, compressed toward the tip; color jet black above, with four longitudinal, narrow, white or yellow colored vittæ, broader and bluish upon the tail; the two middle ones commence each at the snout, pass over the eye, and extend on each side of the neck and back, and are lost upon the middle third of the tail, at its extremity; the inferior one commences at the armpit and terminates at the groin; under parts white, with a tinge of blue upon the abdomen.

*Dimensions.* Length of head 6 lines; greatest breadth 4 lines; length of neck and body 1 inch 11 lines; of tail 3 inches  $5\frac{1}{2}$  lines; of anterior extremities  $8\frac{1}{2}$  lines; of posterior extremities 11 lines. Total length 5 inches, 10 lines.

*Habitat.* Hong Kong Island, China. Near the summit of the mountain. Caught May 4th, 1854, by Mr. Wright.

## OPHIDIA.

## AGLYPHODONTES.

## HERPETODRYAS Boie.

## HERPETODRYAS CHLORIS nob.

*Spec. char.* Internasals very much smaller than prefrontals, rostral plate pentagonal, the other plates upon the head presenting nothing remarkable; eight superior labials, the eye resting on the fourth and fifth; anterior genaeals much longer and broader than the posterior; fifteen rows of smooth scales upon the middle of the body; tail rather long; a double row of bifid preanal scutes; 161 ab. scut, 86 subcaud. Color uniform green above, white below.

*Dimensions* Length of head 8 lines; greatest breadth 4 lines; length of body 1 foot 7 inches; of tail 8 inches 5 lines.

*Habitat.* Hong Kong Island. Caught May, 1854, by Mr. Brooke.

## LEPTOPHIS Bell.

## LEPTOPHIS TRIFRENATUS nob.

*Spec. char.* Body very long and somewhat slender; seventeen rows near the middle, the three median ones carinated; color olive above, baird with black posteriorly; under parts yellow, black spotted upon throat; posterior margin of scale at posterior part of body margined with black; ab. scut. 187, subcaud. 110. Total length 5 feet. (Fr.)

*Description.* The plates upon the upper part of the head present nothing remarkable; the nostril is deeply excavated between the plates: there are three prefrontals, the one immediately behind the post-nasal five-sided, nearly quadrangular in shape, the two behind it smaller and resembling it; there are two post-oculars, and eight superior labials, the eye resting on the fourth and fifth; the scales upon the sides of the body are smooth and quadrangular, those upon the middle of the back carinated. Coloration: The general tinge above is olive, the posterior part of the body being barred irregularly with black; tail olive colored above, barred transversely at its root with black, and maculated with black toward its posterior extremities; posterior border of the labial plates margined with black; middle portion of abdomen maculated with black; posterior part distinctly margined to a greater or less extent with black posteriorly; under part of tail yellow; the posterior margin of scutes black.

*Dimensions.* Length of head  $1\frac{1}{2}$  inches; greatest breadth 11 lines; length of body 3 feet  $7\frac{3}{4}$  inches; of tail 1 foot  $2\frac{1}{2}$  inches.

*Habitat.* Hong Kong, China. Caught on the island of that name, April, 1854, by Lieut. Brooke.

## AMPHIESMA D. &amp; B.

AMPHIESMA STOLATUM. One specimen caught on a hill at Whampoa, China, July, 1851.

## AMPHIESMA FLAVIPUNCTATUM nob.

*Char.* Head small, eyes somewhat prominent, internasals small and triangular, prefrontals of moderate size, pentagonal; three or four post-oculars; eight supralabials, the eye resting on the third and fourth; a small plate intercalated between the second and third; seventeen rows of lanceolate scales, near the middle of the body, the two inferior rows smooth. Color dusky yellow, with numerous yellow spots along the margin of the scales, a black undulating band running transversely behind the occiput, and two oblique ones upon the side of the head, the one commencing at the inferior margin of the eye, passing over the inferior post-ocular, and extending between the fifth and sixth supra labial to the inferior margin of the jaw; another commencing behind the post-orbital, and extending obliquely across the temples, and terminating at the

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inferior and posterior margin of the seventh supralabial plate; under parts yellow, the posterior margin of each scute bordered with black—128 ab. sent. 1 bifid prænal; 78 urostega.

*Dimensions.* Length of head 9 lines; greatest breadth  $5\frac{1}{2}$ ; length of body 1 foot  $2\frac{1}{4}$  inches; of tail 6 inches, 8 lines. Total length 1 foot, 9 inches, 8 lines.

*Habitat.* Island of Hong Kong, May, 1854, by Mr. Brooke. The specimen of the expedition having been somewhat injured, the above description was taken from a larger specimen in the collection of the Academy, which is stated to have been captured in Cauton River.

#### OPISTHOGLYPHES D. & B.

##### PLATYRHINIENS.

##### HOMALOPSIS Kuhl.

? *HOMALOPSIS BUCCATUS* Fitzinger. D. & B., tom. vii., p. 968. One specimen, caught on the Island of Hong Kong, May, 1854, by Mr. Brooke.

##### PROTEROGLYPHES.

*NAJA HAJI.* One specimen, caught among stones on the shore of Hong Kong Harbor, May, 1854.

#### BATRACHIA.

##### RANIDÆ.

##### RANA TIGRINA Daud.

Syn. *Rana rugulosa* Weig., Nov. Act., tom. xvii., p. 258, tab. 21, fig. 2.

*Rana tigrina* Daud. Hist. Nat. des Grenouilles des Rainettes et des Cra-pauds, p. 864, pl. xx.

*Rana limnocharis* Boie., MS.

*Rana Cancrivora* D.

*Rana vittigera* Weig., Nov. Act., vol. xviii., tab. 21, fig. 1.

*Rana mugiens* Daud., pl. xvii.

*Rana brama* Lesson, Belanger, Voy. aux Indes Orientales, pl. vi.

*Spec. char.* General appearance very much like that of *Rana rugosa*, Schlegel, but it wants the vocal vesicles, and the longitudinal folds on either side of the back; head large, rather narrow in front; an oblique fold extending from the eye to the shoulder, with small vomerine teeth in two large patches situated very obliquely; tongue long, bifid posteriorly; tympanum very distinct; extremities robust; a longitudinal glandular band running across the frenal region, which is excavated, and passing under the eye; an oblique fold extending from the eye to near the shoulder; color dark brown above, dark spotted, with numerous elevated longitudinal ridges upon the back, placed irregularly; upper jaw spotted with black; thighs marbled posteriorly with black, upon a yellow ground; legs tarsi, and under part of feet banded with black; skin not smooth but warty; the trails on the posterior part of the body largely developed; under parts yellow, the chin slightly marbled with black.

*Dimensions.* Length of head 1 inch 4 lines; breadth 1 inch three lines; length of head and body 3 inches; length of arm 6 lines; of forearm 6; of hand to extremity of longest finger 7 lines; of thigh 1 inch 4 lines; of leg 1 inch  $4\frac{1}{2}$  lines, of feet to extremity of longest toe 1 inch  $4\frac{1}{2}$  lines.

*Habitat.* Hong Kong; bought in the market of that place, Sept., 1854, by Wm. Stimpson.

##### RANA TRIVITTATA nob.

*Spec. char.* Head triangular, snout rather acute, palatine teeth but slightly developed, in two converging rows, their posterior extremities wide apart; tongue pyriform, deeply notched behind; body and extremities slender; color brownish, dark spotted, with three longitudinal white lines extending the whole length of the head and body commencing at the snout, the two exterior passing

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over the eye; a truncate band reaching from the snout to the eye; extremities banded and brown spotted; two brownish bars on each side of the thighs posteriorly; under parts white.

*Dimensions.* Length of head 5 lines; greatest breadth 4; length of head and body 11 lines; length of anterior extremities 7 lines; of posterior 1 inch 10 lines.

*Habitat.* Hong Kong, China.

#### RANA NEBULOSA nob.

*Spec. char.* Quite small, head rather broad posteriorly, extremities slender, palatine teeth in two bunches between the internal nares; tongue pyriform free at the sides, and very much so posteriorly, notched behind; tympanum distinct; color brown above, skin smooth; chin, throat and abdomen white or grayish; under part of extremities flesh colored.

*Dimensions.* Length of head 4 lines; greatest breadth 4; length of head and body 10 lines; of anterior extremities 6 lines; of posterior 1 inch 1 line.

*Habitat.* Hong Kong, China.

*Gen. remarks.* The young no doubt of a larger animal.

RANA GRACILIS Weig., Nova. Acta, vol. xvii., p. 257.

*Spec. char.* Snout somewhat acute, supraciliary regions prominent; nostrils wide apart; skin of the back thrown into longitudinal rugose folds: body slender; head long and rather broad posteriorly, posterior extremities stout; color above brownish, dark spotted; with transverse dark colored blotches upon the back; a narrow longitudinal white line extending from the snout to the posterior extremity of the body, absent in some specimens; webs of the hinder extremities reaching to the base of the penultimate phalanx, except of the 4th, where it reaches the base of the antepenultimate; thighs and legs spotted and banded with brown; a series of longitudinal dark colored bars, broader below the hips; under parts white.

*Dimensions.* Length of head 7 lines; greatest breadth 5; length of head and body 1 inch 2 lines; length of anterior extremities 8 lines: of posterior 1 inch 11 lines.

*Habitat.* China, caught at Whampoa, June 1854, by Mr. Stimpson.

*Gen. remarks.* According to Weigmann, this small species is found on the island of Lucon as well as in China. They are used abundantly as an article of food in both places, and captured by thousands, especially for the market of Macao.

#### RANA MULTISTRIATA nob.

*Spec. char.* Color greyish above, with transverse angular bars of a darker color; upper and lower jaw dark-spotted; abdomen white; length 1 inch 3 lines.

*Description.* Head long, eyes not prominent, tympanum of moderate size, tongue obcordate, hollowed posteriorly; palatine teeth *en chevron*, between the interior nares; anterior extremities slender, posterior rather stout; color greyish above, with transverse angular bars of a darker color upon the head and body, one passing between the eyes, posteriorly prolonged *en triangle*; thighs round and mottled with grey and white; legs barred posteriorly with black; arms and forearms barred with black; upper lip barred with dark brown; lower, brown spotted, the interior margin rounded; chin mottled with brown; abdomen white, under parts of extremities plush color.

*Dimensions.* Length of head 6 lines; greatest breadth 5; length of head and body 1 inch,  $2\frac{1}{2}$  lines; of anterior extremities 8 lines; of posterior, 1 inch, 9 lines; of thigh 6 lines; of leg 6; of tarsus 3.

*Habitat.* Hong-Kong, China. Two specimens.

#### OXYGLOSSUS Tschudi.

*Oxydozyga* Kuhl, MS. *Rhomboglossus* D. & B., MS.

*Char.* Head triangular, tongue oval, attached in front, free on the greater part of its extent posteriorly; body short and thick, rugose above; eyelids warty, anterior extremities of moderate thickness, posterior rather stout, fingers slightly webbed at their base, four fingers, five toes, the second finger much the longer, the two outer ones of nearly equal length; the web of the toes extending to the base of the terminal phalanx.

OXYGLOSSUS LIMA Tschudi.

Syn. *Oxydozyga braccata* Kuhl, MS.

*Bombinator lima* Mus. Lugd. et Francf.

*Oxyglossus lima* Tschudi. Classif. der Batrachier. (Mem. Acad. Neuch. tom. i. p. 85.)

*Spec. char.* Brownish above, with a tinge of yellow below; a brown band bordered with white upon the posterior of the thighs.

*Dimensions.* Length of head 7 lines; greatest breadth 6; length of head and body 1 inch 2 lines; length of anterior exterior toes 6 lines; of posterior, 1 inch 7 lines; of thigh 6 lines; of leg 6; of tarsus 3; of foot to extremity of longest toe 7 lines.

*Habitat.* Hong-Kong.

*Gen. remarks.* In the webbing of the feet this animal resembles *Dactylethra*; but in the form and arrangement of the tongue, and in other respects, it is quite different. Dumeril & Bibron have given Bengal and Java as the habitat.

BUFONIDÆ.

BUFO Laur.

BUFO GRISEUS nob.

*Char.* Head short and broad, snout slightly truncate; two rather long elliptical paratoids, toes semipalmate, numerous subround tubercles, above upon the back, color greyish above, white or light yellow beneath, with dark-colored markings upon the abdomen.

*Dimensions.* Length of head 4 lines; greatest breadth 4; length of body 9 lines; of arm 3 lines; of forearm 3 lines; of hand and fingers 3 lines; of thigh 4 lines; of leg 4; of tarsus 3 lines; of foot to extremity of longest toe 4 lines.

*Habitat.* Hong-Kong, China, July, 1854. Caught by Mr. Stimpson in the marshes of Whampoa.

ENGYSTOMA Wagl.

ENGYSTOMA PULCHRUM nob.

*Char.* Head small, triangular, snout acute; two tubercles upon the heel; toes semipalmated; ground color of head and body above yellowish, presenting several series of undulating bands, on the side of the latter resembling the contortions of certain geological formations; a black band across the head between the eyes posteriorly; a series of undulating bars in front of this; snout dark-colored, two dark-colored bands meeting near the middle of the body, and diverging; within them numerous dark-colored lines and oval spots bordered with white; similar oval spots between the thighs; arms partly yellowish; chin and throat mottled with black.

*Dimensions.* Length of head 3 lines; greatest breadth 3; length of head and body 10 lines; length of anterior extremities 6 lines; of posterior 1 inch, 7 lines.

*Habitat.* Hong-Kong, China. Common in the brackish water marshes between Hong-Kong and Whampoa, China. June, 1854. It is colored on the back with bluish. brown, white, yellowish, etc, concentrically arranged as in *Agate*.

## HYLIDÆ.

## POLYPEDATES Wagl.

## POLYPEDATES MEGACEPHALUS nob.

*Spec. char.* Head large, two oblong patches of rugosities, upon the vertex; snout truncate, nostrils lateral, quite near the extremity of the snout; skin smooth, tongue cordiform, notched posteriorly, from behind and at the sides; palatine teeth on a level with the anterior border of the posterior nares, converging toward each other, separated from each other by an interval of half a line; body and extremities slender; fingers very slightly webbed at base, posterior webs extending to the base of the penultimate phalanx, except on the fourth where it extends to the base of the antepenultimate; color brown with dark-colored blotches upon the back bordered with white; sides marbled with dark-brown; lower parts light yellow.

*Dimensions.* Length of head 8 lines; greatest breadth 7; length of head and body  $1\frac{1}{2}$  inches; length of anterior extremities 1 inch; of thigh 10 lines; of leg 9 lines; of tarsus 6 lines; of foot to extremity of longest toe 7 lines.

*Habitat.* Hong-Kong, China. Caught May, 1854.

## Java.

## OPHIDIA.

## PYTHONIDÆ—Pythoniens holodontes D. &amp; B.

*Div. B.*—Nostrils vertical.

## PYTHON MOLURUS Gray. One specimen.

*Habitat.* Java. Taken on the Island of Java, purchased and presented to the expedition by Dr. Hamilton. Killed and skinned at Hong-Kong, (not in good preservation). This specimen measured 16 feet in length.

## Cape of Good Hope.

## TESTUDINATA.

## Chersites D. &amp; B. Testudines terrestres.

## Gen. HOMOPUS D. &amp; B.

In the collection of the expedition are eight specimens belonging to this genus, characterized by the presence of four toes only to each extremity.

## HOMOPUS AREOLATUS D. &amp; B.

Erpet. Gen. tom. ii. p. 146, pl. 13, fig. 2 and 3.

*Testudo areolatus*, Rell. Monog. Test. The central portion of the disk in these specimens is from light chocolate brown to darker, in some almost black. The sternum in some specimens is much darker than in others.

## SAURIA.

## GECKOTIDÆ.

## Sauriens ascalabotes D. &amp; B.

## PHYLLODACTYLUS.

## PHYLLODACTYLUS PORPHYREUS D. &amp; B.

*Spec. char.* Head of moderate size, triangular, mental plate of moderate size, pentangular, eight inferior labials, nine superior, ground color above yellow, marbled all over with brown; under parts yellow.

*Dimensions.* Length of head 5 lines; greatest breadth  $3\frac{1}{2}$ ; length of body

13 lines; of tail 1 inch, 6 lines; of anterior extremities 6 lines; of posterior 8 lines.

*Habitat.* Cape of Good Hope. Found in the moist crevices of rocks; common near Simon's Town, Oct. 1853.

## AGAMIDÆ.

## AGAMA Daud.

AGAMA ATRA Daud.

*Agama atra* D. & B., tom. iv. p. 493.

*Agama atra* Smith, Zoology of S. Africa, Appendix, p. 14. Four specimens. Very common at the Cape of Good Hope. Found sunning themselves on rocks; motions slow. Collected Oct. 1855, by Lieut. Van Wyck.

AGAMA ACULEATA? One specimen. D. & B. tom. iv. p. 499. Very common at the Cape of Good Hope. Found sunning themselves on rocks; motions slow. Collected by Lieut. Van Wyck.

## ZONURIDÆ.

ZONURUS GRISEUS D. & B., tom. v. p. 350. Seven specimens. Taken under stones in high ground. Very common at the Cape of Good Hope. Oct. 1853. W. S.

## AUTOSAURIENS.

EREMIAS KNOXII D. & B. tom. v. 299. Smith, Zoology S. Africa, pl. 43. One specimen. Taken in arid places, near Cape Horn. Its motions are exceedingly quick. Oct. 1853. W. S.

## SCINCIDÆ.

## GERRHOSAURUS.

GERRHOSAURUS SEPIFORMIS D. B. Smith, Zoology of S. Africa, pl. 41. D. & B., tom. v. p. 384.

*Scincus sepiiformis* Schneider. Hist. Amphib. fascic. ii. p. 191.

*Scincus sepiiformis* Merrem, Tent. Syst. Amphib. p. 70. One specimen, found under a stone on a grassy plat near Simons Town, Cape of Good Hope. Oct. 1853. W. S.

## Gen. ACONTIAS Cuvier.

ACONTIAS MELEAGRIS D. & B. tom. v. p. 802, pl. 58. One specimen, found under a stone, in a moist situation, near Simon's Town, Cape of Good Hope, Oct. 1853. W. S. According to Dumeril & Bibron, this species is very common in the neighborhood of the Cape of Good Hope.

## OPHIDIANS.

## PROTEROGLYPHES.

Serpens proteroglyphes ou Apistophides D. & B. 1st Sect. Conocercal proteroglyphes.

## Gen. NAJA.

NAJA HAJI. Aspis of the old authors. *Uraus* Wagler.

Var. *intermixta* D. & B. One specimen. Smith, Zoology of Southern Africa, Var. B. pl. xix. This specimen was captured at Constantia, Cape of Good Hope, Oct. 1853, by Capt. Ringgold. Another specimen, brown above, with yellow spots upon the neck. The latter specimen measures 4 feet 5 inches in length; tail 8½ inches.

## SOLENOGLYPHES.

Serpens solenoglyphes ou Thanatophides D. & B.

[Oct.

## Gen. ECHIDNA Merrem.

ECHIDNA ARIETANS Merrem, Puffadder, D. & B. tom. v. p. 1425. One very fine specimen. Taken near Cape Town, Cape of Good Hope, Oct. 1853. Purchased.

## AGLYPHODONTES.

CORONELLA CANA D. & B. One specimen. Taken near Simon's Town, Oct. 1858. Lieut. Van Wyck.

HOMALOSOMA LUTRIX D. & B., tom. vii. p. 110. One specimen. Found under stones on the hill's head, Simon's town, Cape of Good Hope, Oct. 1853. U. S.

## EPANODONTIENS.

## ONYCHOCEPHALUS.

ONYCHOCEPHALUS DELALANDII D. & B., tom. vi. p. 573. One specimen.

## BATRACHIA.

## RANIDÆ.

RANA GRAYII Smith, Zoology of South Africa. Pl. 78, fig. 2. Common in moist grounds. Five specimens.

## Madeira.

## SAURIA.

Lezards LACERTIENS ou Autosaures D. & B.

*Calodontes Leiodactyles.*

## Gen. LACERTA.

LACERTA DUGESII Milne-Edwards, Am. Sc. Nat., tom. xvi. p. 84, tab. 6, fig. 2.

*Lacerta maderensis* Fitz., Neu. Class. der Rept. p. 51.

*Lacerta dugesi* D. & B., tom. v. p. 236.

*Habitat.* Madeira. Seven specimens. Five adult, two young. In one of the young specimens the black lateral bands are destitute of yellow spots. Taken at the Island of Madeira, July, 1853. (C. Ames.)

## BATRACHIANS.

## RANIDÆ.

RANA VIRIDIS Roesel. *Rana maratima* Risso. Two specimens.

*Habitat.* Madeira. The spots upon the back do not appear to be so numerous as in the European specimens of *R. viridis*.

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